



Australian Government

Department of Education, Employment and Workplace Relations

FPISAW3210B File and set saws

Release: 1

FPISAW3210B File and set saws

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to position blades in jigs or vices, produce bevels along the back clearance angles of teeth, check blade clearance requirements and set teeth to site requirements

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication

This unit replaces FPISAW3210A File and set saws

Application of the Unit

Application of the unit

The unit involves filing and setting saws in a forest products factory setting

The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for saw setting	1.1. Applicable Occupational Health and Safety (OHS), environmental, legislative and organisational requirements relevant to filing and setting saws are identified and followed 1.2. Work order is reviewed and checked with appropriate personnel 1.3. Equipment is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer's recommendations 1.4. Setting process is planned in line with site procedures 1.5. Communication with others is established and maintained in line with OHS requirements
2. Set saw	2.1. Saw is set up in a selected jig to allow setting work to be conducted 2.2. Kerf and finish requirements are checked to suit horsepower of the machine, the type of saw and cutting conditions 2.3. Individual teeth are examined to check amount of setting required 2.4. Condition of welding, saw temper and consistency of set between alternate teeth are maintained by setting 2.5. Teeth are measured and assessed for the correct setting placement in line with site procedures 2.6. Teeth are bevelled and bevel length is assessed in line with site procedures 2.7. Set is applied to teeth requiring resetting allowing for estimated spring back 2.8. Set of teeth is checked using gauges in line with site procedures 2.9. Saw setting process and equipment faults are investigated and recorded and reported in line with site requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit

Required skills

- Technical skills sufficient to use and maintain relevant tools, machinery and equipment; efficiently and safely set saws and produce bevels across back clearance angles on saw teeth
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to accurately record and report workplace information, and maintain documentation
- Numeracy skills sufficient to estimate, measure and calculate time required to complete a task
- Problem solving skills sufficient to identify problems and equipment faults and demonstrate appropriate response procedures

Required knowledge

- Applicable Commonwealth, State or Territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for filing and setting saws
- Environmental protection requirements, including the safe disposal of waste material
- Organisational and site standards, requirements, policies and procedures for filing and setting saws
- Environmental risks and hazards
- Characteristics of metal and saws
- Setting methods and geometry
- Saw condition assessment
- Geometric requirements of bevels
- Established communication channels and protocols
- Problem identification and resolution strategies and common fault finding techniques
- Types of tools and equipment and procedures for their safe use, operation and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace information

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can safely and efficiently set saws within organisational requirements

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to, and satisfy, all of the requirements of the elements of this unit and include demonstration of:

- following applicable Commonwealth, State or Territory legislative and regulatory requirements and codes of practice relevant to filing and setting saws
- following organisational policies and procedures relevant to filing and setting saws
- bevelling teeth and assessing bevel lengths, widths, angles, and surface texture, in line with standard operating procedures and site production requirements
- removing and replacing saws from equipment
- setting teeth and assessing conditions in line with standard operating procedures

Context of and specific resources for assessment

- Competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to follow relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and

EVIDENCE GUIDE

accuracy of performance (over time and in a range of workplace relevant contexts) together with application of required knowledge

- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access and correctly interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

OHS requirements: are to be in line with applicable Commonwealth, State or Territory legislation and regulations, and

RANGE STATEMENT

organisational safety policies and procedures, and may include:

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- safe forest practices including required actions relating to forest fire
- manual handling including shifting, lifting and carrying
- machine isolation and guarding
- legislation
- organisational policies and procedures
- workplace practices

Environmental requirements
may include:

Legislative requirements:

are to be in line with applicable Commonwealth, State or Territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

Organisational requirements
may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- quality assurance
- procedural manuals
- quality and continuous improvement processes and standards

RANGE STATEMENT

- OHS, emergency and evacuation procedures
 - ethical standards
 - recording and reporting requirements
 - equipment use and maintenance and storage requirements
 - environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)
- Setting**
- is the angle the teeth are bent providing clearance to prevent the blade jamming during the cutting operation
 - is most commonly associated with alternate left and right bending of teeth found on hand saws and solid tooth spring set saw blades
- Saws** may include:
- hand saws
 - band saws
 - circular saws (all types)
 - gang saws
- and are to include:
- procedures for equipment lock-out, i.e. protecting operators and co-workers from accidental injury by isolating the machine from the power source
- Work order** is to include:
- instructions for the setting of saws in designated equipment
- and may include:
- instructions for the environmental monitoring of work and procedures
 - environmental care requirements relevant to the work
- Appropriate personnel** may include:
- supervisors
 - suppliers
 - clients
 - colleagues
 - managers
- Equipment** may include:
- setting instruments such as levers and gauges, automatic or hand-held grinders, jigs and vices
- Communication** may include:
- verbal and non-verbal language
 - constructive feedback
 - active listening
 - questioning to clarify and confirm

RANGE STATEMENT

	- understanding • use of positive, confident and cooperative language • use of language and concepts appropriate to individual social and cultural differences • control of tone of voice • body language
Jig	is a device which secures the saw while setting takes place
Kerf	is the width of the cut in timber caused by each tooth being tilted in opposing directions creating a cut wider than the thickness of the blade
Condition of welding and saw temper is to include:	• assessing the blade and the teeth for existing repairs resulting in welding which may have cracked or moved • hardness of the blade as excessive heat during cutting may alter the temper
Setting placement is to include:	• assessing the blade and the teeth for existing repairs and possible weaknesses resulting from previous welding or cracking, or damage caused through stress of bending teeth
Bevelled	is the process of filing saw teeth to a bevel to allow for better clearance during cutting operations
Bevels	• are the flat sections produced along the back clearance angles of saw teeth • can be single or double (e.g. hogged, roof top and triple chip teeth) • can be produced through hand filing or grinding
Spring back	• involves considering and allowing for the fact that metal has some memory and will want to move back to its original position • effects can be compensated, depending on the period between maintenance and saw blade operation
Records and reports may include:	• saw setting • inspection • storage locations • quality outcomes

RANGE STATEMENT

- hazards
- incidents
- equipment malfunctions

and may be:

- manual
- using a computer-based system or another appropriate organisational communication system

Unit Sector(s)

Unit sector No sector assigned

Co-requisite units

Co-requisite units

Competency field

Competency field Sawmilling and Processing